

Attachment H

COVER SHEET (PAGE 1 of 2)

May 1998 CALFED ECOSYSTEM RESTORATION PROPOSAL SOLICITATION

Proposal Title: Prospect Island Habitat Restoration Monitoring
 Applicant Name: Leo Winternitz Plan.
 Mailing Address: 3251 "S" St, Sac CA 95816
 Telephone: (916) 227-7548
 Fax: (916) 227-7554

Amount of funding requested: \$2,353,000 for 3 years

Indicate the Topic for which you are applying (check only one box). Note that this is an important decision: see page of the Proposal Solicitation Package for more information.

- | | |
|---|---|
| <input type="checkbox"/> Fish Passage Assessment | <input type="checkbox"/> Fish Passage Improvements |
| <input checked="" type="checkbox"/> Floodplain and Habitat Restoration | <input type="checkbox"/> Gravel Restoration |
| <input type="checkbox"/> Fish Harvest | <input type="checkbox"/> Species Life History Studies |
| <input type="checkbox"/> Watershed Planning/Implementation | <input type="checkbox"/> Education |
| <input type="checkbox"/> Fish Screen Evaluations - Alternatives and Biological Priorities | |

Indicate the geographic area of your proposal (check only one box):

- | | |
|---|---|
| <input type="checkbox"/> Sacramento River Mainstem | <input type="checkbox"/> Sacramento Tributary: <u> </u> |
| <input checked="" type="checkbox"/> Delta | <input type="checkbox"/> East Side Delta Tributary: <u> </u> |
| <input type="checkbox"/> Suisun Marsh and Bay | <input type="checkbox"/> San Joaquin Tributary: <u> </u> |
| <input type="checkbox"/> San Joaquin River Mainstem | <input type="checkbox"/> Other: <u> </u> |
| <input type="checkbox"/> Landscape (entire Bay-Delta watershed) | <input type="checkbox"/> North Bay: <u> </u> |

Indicate the primary species which the proposal addresses (check no more than two boxes):

- | | |
|--|--|
| <input type="checkbox"/> San Joaquin and East-side Delta tributaries fall-run chinook salmon | |
| <input type="checkbox"/> Winter-run chinook salmon | <input type="checkbox"/> Spring-run chinook salmon |
| <input type="checkbox"/> Late-fall run chinook salmon | <input type="checkbox"/> Fall-run chinook salmon |
| <input checked="" type="checkbox"/> Delta smelt | <input type="checkbox"/> Longfin smelt |
| <input checked="" type="checkbox"/> Splittail | <input type="checkbox"/> Steelhead trout |
| <input type="checkbox"/> Green sturgeon | <input type="checkbox"/> Striped bass |
| <input type="checkbox"/> Migratory birds | |

COVER SHEET (PAGE 2 of 2)

May 1998 CALFED ECOSYSTEM RESTORATION PROPOSAL SOLICITATION

Indicate the type of applicant (check only one box):

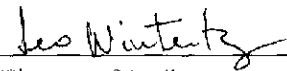
- | | |
|--|---|
| <input checked="" type="checkbox"/> State agency | <input type="checkbox"/> Federal agency |
| <input type="checkbox"/> Public/Non-profit joint venture | <input type="checkbox"/> Non-profit |
| <input type="checkbox"/> Local government/district | <input type="checkbox"/> Private party |
| <input type="checkbox"/> University | <input type="checkbox"/> Other: _____ |

Indicate the type of project (check only one box):

- | | |
|--|---|
| <input type="checkbox"/> Planning | <input type="checkbox"/> Implementation |
| <input checked="" type="checkbox"/> Monitoring | <input type="checkbox"/> Education |
| <input type="checkbox"/> Research | |

By signing below, the applicant declares the following:

- (1) the truthfulness of all representations in their proposal;
- (2) the individual signing the form is entitled to submit the application on behalf of the applicant (if applicant is an entity or organization); and
- (3) the person submitting the application has read and understood the conflict of interest and confidentiality discussion in the PSP (Section II.K) and waives any and all rights to privacy and confidentiality of the proposal on behalf of the applicant, to the extent as provided in the Section.


(Signature of Applicant)

EXECUTIVE SUMMARY

Project Title: Prospect Island Habitat Restoration Monitoring Plan
Applicant Name: Leo Winternitz, Department of Water Resources

Project Description and Primary Biological/Ecological Objectives:

The Prospect Island Habitat Restoration Project is a project to restore approximately 1300 acres of shallow-water habitat in the northern Sacramento-San Joaquin Delta. The land was once part of the Yolo Bypass and has flooded repeatedly, including major flooding in the winter storms of January 1997. Category III funds have been obtained for construction and operations and maintenance of the project. Presently, no funds have been allocated for monitoring. DWR is requesting that Category III fund three years of post-project monitoring.

Biological/ecological objectives of the project are to create shallow-water, freshwater emergent marsh, mudflat, shaded riverine aquatic, riparian and upland habitat that will be beneficial to a variety of aquatic, avian and terrestrial species including threatened and endangered species such as delta smelt, Sacramento splittail, and Swainson's hawk. Many CALFED objectives will be addressed such as those to improve floodplain function, establish a hydraulic regime to provide migratory cues and facilitate species transport, to increase foodweb production, to increase tidal perennial habitats, to increase freshwater emergent wetland and to increase populations of delta smelt, splittail, chinook salmon, and Bay-Delta aquatic foodweb organisms.

Monitoring of this project will provide CALFED with important information to guide future island restoration projects in the Delta. Objectives of the monitoring plan are to evaluate the ecological processes that take place after restoration (subsidence or erosion of habitat features, water circulation patterns as a result of location of the breaches), use of the habitat by targeted species, and the flux of organic carbon (important as an element in the food chain and as a precursor to drinking water disinfection by-products), phytoplankton, nutrients and sediment to the channels from the flooded island. Nine elements will be monitored: fish, wildlife, water quality, vegetation, phytoplankton, zooplankton, benthos, bathymetry and organic carbon. Different habitats within Prospect Island will be compared to the adjacent channels. In addition, some elements monitored on Prospect Island (fish, water quality, zooplankton) will be compared to the same elements monitored on an agricultural island that has flooded and been left to develop naturally.

Approach/Tasks/Schedule:

Monitoring will be conducted by principal investigators of the nine program elements coordinated by a program manager at DWR. Most monitoring will be monthly with some exceptions based on the nature of the monitoring techniques and the biological activity of the species to be monitored. Monitoring will begin in November 2000 and last for three years. An Interagency Ecological Program Prospect Island Project Work Team will meet regularly to discuss monitoring techniques, monitoring results and success of the project. Quarterly reports will be published in the IEP newsletter and annual reports will be sent to CALFED.

Justification for Project and Funding by CALFED:

In the last hundred years, shallow water habitat has disappeared from the Sacramento-San Joaquin Delta as levees have been built and land reclaimed for agriculture. A major goal of the CALFED program and other programs such as the Anadromous Fish Restoration Program is to restore shallow-water habitat in the Delta. Although it has been postulated that shallow-water habitat is important for spawning and rearing of native Delta species such as delta smelt, Sacramento splittail

and chinook salmon, the assumption that creation of shallow-water habitat will benefit targeted species has not been scientifically demonstrated. A comprehensive monitoring program such as the one proposed here is essential to measure the benefits, if any, to targeted species from creation of shallow-water habitat.

Monitoring is also essential to implement adaptive management for the project. For example, the current design of Prospect Island incorporates two southern breaches. If post-project monitoring of the island shows the need for increased water circulation and greater water exchange, adaptive management can be applied by creating additional breaches to improve the overall success of the project. Without monitoring, it would be impossible to determine whether any alterations or improvements should be made to the project design or whether habitat features are being used by targeted species. Furthermore, results of the three year Prospect Island monitoring program will help aid CALFED and other agencies in the design of future restoration projects by providing comparative information on the use of designed projects like Prospect Island to those that are naturally, or simply breached like Little Holland Tract or Liberty Island. The Prospect Island monitoring plan can be used as a baseline plan for monitoring of future restoration projects.

Budget Costs and Third Party Impacts:

The costs are approximately \$850,000 the first year, and \$750,00 the following two years for a total of \$2.3 million dollars. No third party effects have been identified.

Applicant Qualifications:

Leo Winternitz has a graduate degree in Environmental Management and is currently an Environmental Program Manager I with DWR. He has administered major portions of the \$2 million Sacramento-San Joaquin Ecological Studies Project Agreement between DWR and DFG; participated as a member of the Delta Native Fishes Recovery Team, and is currently DWR's program manager for the Prospect Island Restoration Project. The principal investigators of each of the monitoring elements were selected based on their areas of expertise. They include fishery biologists and wildlife biologists from DFG and environmental specialists and engineers from DWR.

Monitoring and Data Evaluation:

Specific monitoring techniques for each of the elements are listed in Table 1. These techniques are sampling methods used by the principal investigators for sampling in their areas of expertise. The first year of monitoring will involve some field testing of sampling equipment. Sampling techniques will be peer reviewed by publication of sampling results in the quarterly IEP newsletter.

Local Support/Coordination with Other Programs/Compatibility with CALFED Objectives:

The Prospect Island project technical team as well as the monitoring team have and will continue to solicit local support for the program. Through the IEP Program, the monitoring is being coordinated with other shallow-water habitat monitoring programs in the Delta. Monitoring of Prospect Island is consistent with CALFED's objective to evaluate the benefits of restoration projects and to determine the needs and applications of adaptive management through the interpretation of monitoring results.

TITLE PAGE

Title of Project:

Prospect Island Monitoring Project

Name of Applicant:

Leo Winternitz

Address: Department of Water Resources

Phone: (916) 227-7548

FAX: (916) 227-7554

Type of Organization and Tax Status:

State organization

Tax Identification Number and/or Contractor license:

Not applicable

Participants/Collaborators in Implementation:

Fish:	Dale Sweetnam (DFG) and Randy Baxter (DFG)
Wildlife:	Frank Wernette (DFG)
Vegetation:	Kent Nelson (DWR) and Jean Witzman (DWR)
Water Quality:	Hank Gebhard (DWR) and Katie Wadsworth (DWR)
Phytoplankton:	Peggy Lehman (DWR)
Zooplankton:	Jim Orsi (DFG)
Benthic:	Heather Peterson (DWR)
Bathymetry:	Howard Mann (DWR)
Organic Carbon:	Peggy Lehman (DWR) and Collette Zemitis (DWR)

PROSPECT ISLAND MONITORING PROPOSAL PROJECT DESCRIPTION

Project Description and Approach:

The Prospect Island Habitat Restoration Project is a project to restore approximately 1300 acres of shallow-water habitat in the northern Sacramento-San Joaquin Delta. The Army Corps of Engineers and the Department of Water Resources are cosponsors of the project along with participation by the Bureau of Reclamation, Fish and Wildlife Service, Department of Fish and Game and others. The project will involve construction of nine internal islands, an internal channel, side channels and dead-end sloughs as well as adding long gradual benches to the insides of the levee and planting riparian vegetation. Then, the external levees will be breached in two places, flooding the island and restoring tidal action.

Biological/ecological objectives of the project are to create shallow-water, freshwater emergent marsh, mudflat, shaded riverine aquatic, riparian and upland habitat that will be beneficial to a variety of aquatic, avian and terrestrial species including threatened and endangered species such as delta smelt, Sacramento splittail, chinook salmon and Swainson's hawk. Many CALFED objectives will be addressed such as those to improve floodplain function, establish a hydraulic regime to provide migratory cues and facilitate species transport, to increase foodweb production, to increase tidal perennial habitats, to increase freshwater emergent wetland and to increase populations of delta smelt, splittail, chinook salmon, and Bay-Delta aquatic foodweb organisms.

Funds for acquisition, construction, and operations and maintenance of the project have been obtained from the legislature, the Army Corps of Engineers Section 1135 program and the Category III program. This proposal is a request for funds for post-project monitoring. The monitoring program is a comprehensive effort, including fish, wildlife, water quality, vegetation, phytoplankton, zooplankton, benthos, bathymetry and organic carbon elements. Monitoring will provide CALFED with important information to guide further restoration efforts in the Delta. Objectives of the monitoring plan are to evaluate the ecological processes that take place after restoration (subsidence or erosion of habitat features, water circulation patterns as a result of location of the breaches), use of the habitat by targeted species, and the flux of organic carbon (important as an element in the food chain and as a precursor to drinking water disinfection by-products), phytoplankton, nutrients and sediment to the channels from the flooded island.

Proposed Scope of Work:

This proposal is for the monitoring phase of the project. There will be three years of monitoring with nine elements. One to three years of monitoring could be funded; however, we believe that at least three years of monitoring is needed to demonstrate the effectiveness of the project. Fewer than the nine elements could be funded; however we believe that the nine elements are necessary for a complete ecological evaluation of the project. In addition, the elements are interrelated. Principal investigators will be analyzing relationships between data collected for the different elements. The average annual cost per element is \$90,000. The cost for monitoring all nine elements for three years is 2.3 million dollars, approximately 20% of the total cost for project acquisition, construction, and operations and maintenance.

Location and/or Geographic Boundaries of Project:

Prospect Island is located in Solano County in the northwestern part of the Sacramento-

San Joaquin Delta (Figure 1). As defined in the ERPP, the project is in the Sacramento River Watershed Region, Sacramento-San Joaquin Delta Ecological Zone, North Delta Ecological Unit. Prospect Island is bounded by the Sacramento Deep Water Ship Channel to the west, the remnants of Little Holland Tract to the northwest, Miner Slough to the east, and the confluence of the Ship Channel and Miner Slough to the south. The project area encompasses the 1,316-acre northern portion of Prospect Island. The 309-acre southern portion is owned by the Port of Sacramento.

Expected Benefits:

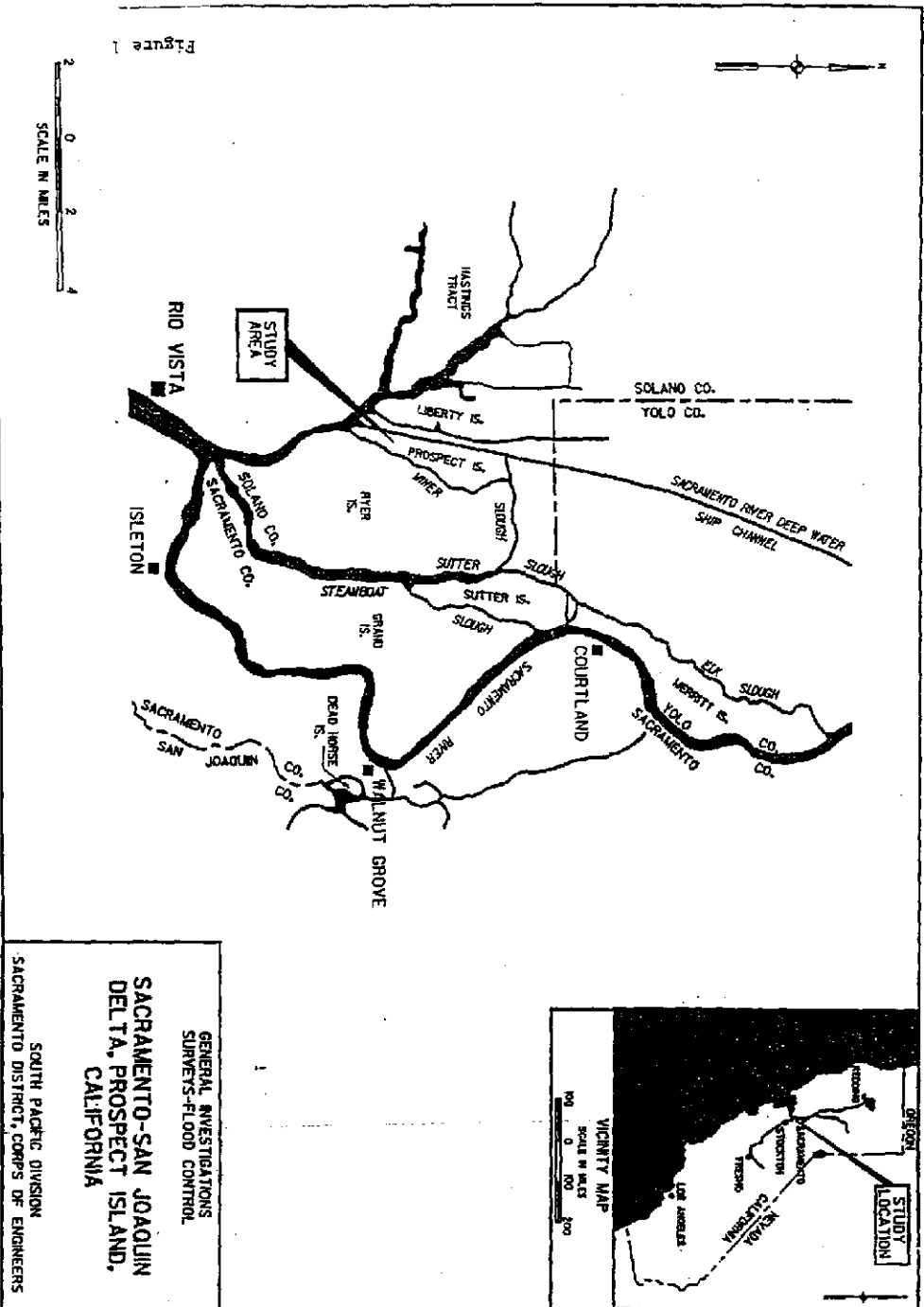
Stressors: The project addresses the ERPP stressors of “hydrological isolation of floodplain, physical isolation of floodplain” and “channel form changes, loss of existing riparian zone.” The Prospect Island project will hydrologically connect historical floodplain to Delta channels thereby providing a variety of habitats for aquatic and terrestrial species and improving such ecological processes as nutrient input to rivers and spawning habitat development. The Prospect Island project will restore shallow-water habitat that has been lost due to levee construction and channel reconfiguration. Restoration of riparian vegetation will provide foraging and nesting habitat. Monitoring of the project is essential to measure the effect the project has on these stressors.

Priority Species: By restoring shallow-water habitat, the Prospect Island project may increase spawning and rearing habitat for delta smelt, longfin smelt, splittail and striped bass. The levee breaches are intended to provide a migration corridor and resting area for anadromous fish such as chinook salmon. The project also targets migratory birds by providing riparian habitat and feeding areas. Monitoring is necessary to measure the benefits to these species.

Priority Habitats: The Prospect Island project will restore approximately 1300 acres of tidal perennial aquatic habitat, some shaded riverine aquatic habitat and midchannel islands and shoals habitat. Vegetation monitoring will be used to quantify the acres of each type of habitat created, measure vegetation survival, and to document changes in habitat type over time. Fish and wildlife monitoring will quantify use of the habitats by targeted species.

The monitoring program will also provide CALFED and Category III with information to guide future restoration projects. A comparison of the numbers and types of species found on Prospect Island will help decision makers decide whether there is more benefit in creating a \$6 million restoration site (Prospect Island) or allowing islands to flood naturally (Liberty Island). A secondary benefit of monitoring Prospect Island includes the information that will be provided and used for purposes of adaptive management. For example, if post-project monitoring of the island shows the need for increased water circulation and greater water exchange, adaptive management can be applied by creating additional breaches to improve the overall success of the project. Without monitoring, it would be impossible to determine whether any alteration or improvements should be made to the project design.

Monitoring of Prospect Island would benefit other restoration programs by providing a baseline plan that could be used as a guideline for future projects. The IEP Project Work Team formed to monitor Prospect Island could also be used to evaluate and critique future monitoring plans. Furthermore, the data and reports generated from the information collected on Prospect Island could be used by scientists and decision-makers in the field of restoration.



Background and Ecological/Biological/Technical Justification:

Most of the Sacramento-San Joaquin Delta wetlands have been lost due to levee construction and land reclamation in the last hundred years. It has been hypothesized that loss of shallow-water habitat has resulted in less spawning and rearing habitat for fish and wildlife as well as less primary and secondary productivity for the food web. Restoration of shallow-water and other habitat on Prospect Island addresses many ERPP implementation objectives for restoration of natural floodplain processes and for priority habitats and species (Table 1). The monitoring program also addresses the Anadromous Fish Restoration Plan goal "to evaluate benefits of and opportunities for additional tidal shallow-water habitat as rearing habitat for anadromous fish in the Delta."

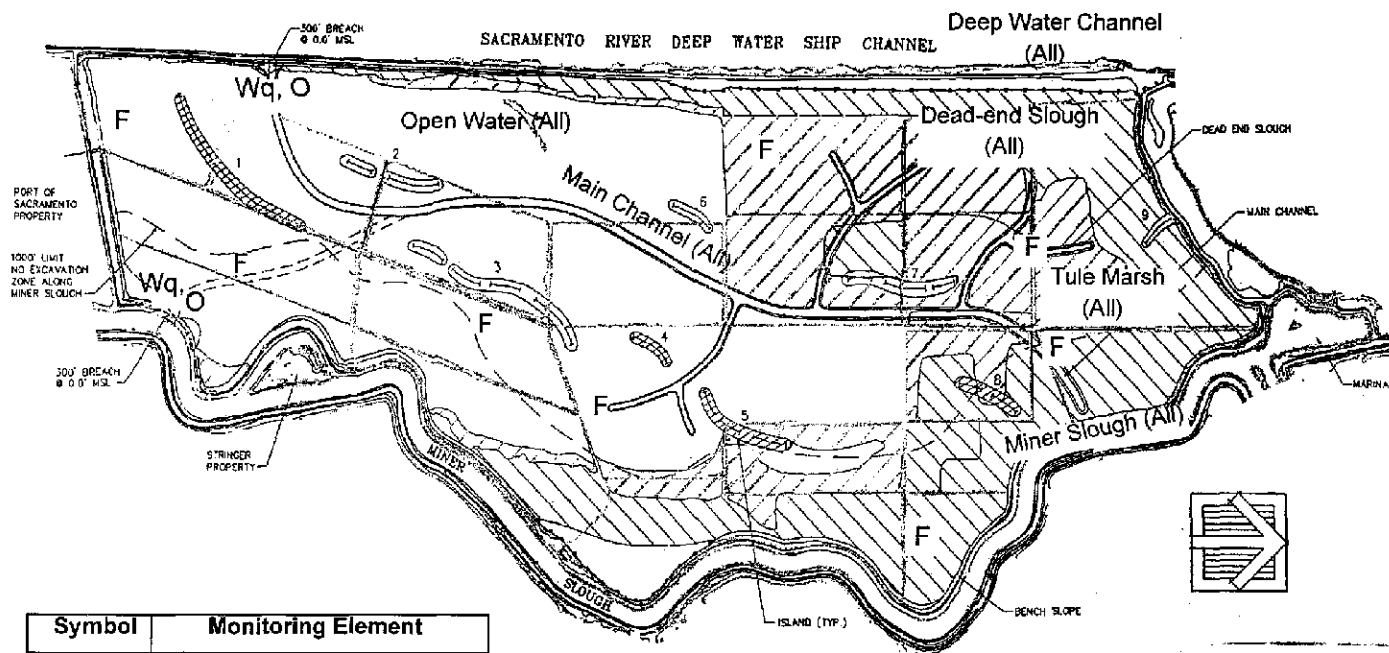
Table 1. Ecosystem Restoration Program Plan Implementation Objectives

Implementation Objective	Section	ERPP Volume I, Page Number
Natural Floodplains and Flood Processes	Ecological Processes Visions	45
Delta Channel Hydraulics	Ecological Processes Visions	57
Bay-Delta Aquatic Foodweb	Ecological Processes Visions	63
Tidal Perennial Aquatic Habitat	Habitat Visions	82
Delta sloughs	Habitat Visions	88
Midchannel Islands and shoals	Habitat Visions	92
Fresh Emergent Wetland	Habitat Visions	101
Riparian and Riverine Aquatic Habitats	Habitat Visions	110
delta smelt	Species and Species Group Visions	136
Longfin smelt	Species and Species Group Visions	141
Splittail	Species and Species Group Visions	144
Chinook salmon	Species and Species Group Visions	153
Striped bass	Species and Species Group Visions	165
Bay-Delta Aquatic Foodweb Organisms	Species and Species Group Visions	181
Waterfowl	Species and Species Group Visions	260

In 1995, Category III approved \$2.5 million for the design, construction, and long-term maintenance of the Prospect Island Habitat Restoration Project. The current status of the project is a draft Project Modification Report and environmental documentation (Environmental Assessment/Initial Study) have undergone public review. Upon final approval of the project, contracts will be written to obtain the \$2.5 million from Category III. Due to unforeseen flooding of the island and levee breaches, the Army Corps of Engineers has obtained an additional \$2 million from Category III for emergency repair work that will take place before construction begins. Construction is scheduled to begin spring 1999 and continue through fall 2000. This monitoring program will begin at the completion of construction.

Monitoring and Data Evaluation:

Principal investigators for the monitoring program were selected because of their expertise in the different areas. The nine different monitoring elements were selected to characterize the ecological success of the project as completely as possible. For most elements, monthly sampling will occur in different habitats on Prospect Island: main channel, shallow open water, tule marsh, dead-end slough (Figure 2). Detailed sampling information is in Table 2. Species concentrations/conditions in the various habitats will be compared to species



Symbol	Monitoring Element
F	Fish
Wq	Water Quality
O	Organic Carbon
All	Fish, Water Quality, Phytoplankton, Zooplankton, Benthic, Organic Carbon, Wildlife, Vegetation, and Bathymetry

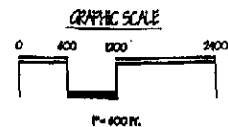
*Wildlife, Vegetation, and Bathymetry sampling will take place throughout the island including islands, channels, levee berms, open water, emergent marsh, and mudflats.

LEGEND		
HABITAT TYPES	SYMBOL	ACRES
OPEN WATER (>-1.0' MSL)	[Symbol]	594.5
MUDFLAT (0.0' MSL)	[Symbol]	4.0
TULE/EMERGENT (0.0' MSL TO 3.0' MSL)	[Symbol]	333.8
POTENTIAL TULE/EMERGENT (-0.5' MSL TO 0.0' MSL)	[Symbol]	230.0
SRA/RIPARIAN/UPLAND (>3.0' MSL)	[Symbol]	153.7
TOTAL ACREAGE:		1316.0

Figure 2

PROSPECT ISLAND

FISH & WILDLIFE HABITAT RESTORATION



concentrations/conditions in the channels providing a comparison of the ecological value of shallow-water habitat as compared to channels in the Delta (the existing Delta condition).

In addition, there will be limited sampling at a comparison site, probably Liberty Island, another agricultural island in the Northern Delta. The comparison site will be an island that was flooded and will be left to develop naturally as a wetland. The ecological value of Prospect Island, which has been artificially manipulated to have many different habitat types, will be compared to the ecological value of a comparison site that has not been sculpted. Habitat use, presence or absence of native and non-native species and water quality conditions will be compared between both sites.

Table 2. Data acquisition methods

OBJECTIVES	DATA ACQUISITION
Fish	
Quantify/qualify general fish species use year round. Document ratio of native to non-native species	<ul style="list-style-type: none"> - Sampling schedule: Quarterly (January, April, July, October) - Targeted life stages: Larval, juveniles, and adults for all species - Gear: Electrofishing, purse seine, beach seine, egg and larval net, gill nets, light traps - Sampling frequency: Once per quarter on spring and neap tidal cycles - Habitats sampled: See map
Quantify spawner use by delta smelt and splittail.	<ul style="list-style-type: none"> - Sampling schedule: Mid-February to mid-June - Targeted life stages: Pre/post spawning adult delta smelt and splittail - Gear : purse seine, gill nets, push nets, and beach seine - Sampling frequency: Bi-monthly on spring and neap tidal cycles - Habitats sampled: See map
Quantify larval rearing by delta smelt and splittail.	<ul style="list-style-type: none"> - Sampling schedule: Mid-February to mid-June - Targeted life stages: Larval delta smelt and splittail - Gear Type: Active gear (larval and push nets), Passive gear (larval light traps) - Sampling frequency: Weekly - Habitats sampled: See map
Quantify salmon fry/smolt use.	<ul style="list-style-type: none"> - Sampling schedule: December through May - Targeted life stages: Winter-run salmon smolts and salmon fry - Gear types: beach seine and purse seine - Sampling Frequency: Weekly - Habitats sampled: In and near breaches in the Miner Slough and Ship Channel
Wildlife	
Quantify/qualify wildlife use in: Open Water Habitat	<ul style="list-style-type: none"> - Sampling schedule: Quarterly (January, April, July, and October) - Targeted species: Amphibians, waterfowl and other water birds; Western pond turtle - Survey methods: Point counts, canoe surveys, and incidental surveys - Habitats sampled: Open channel areas, dead end sloughs, and shallow water areas;
Mudflats and Emergent Marsh	<ul style="list-style-type: none"> - Sampling schedule: Quarterly (January, April, July, and October) - Targeted species: Shorebirds, waterfowl, small mammals, amphibians and California black rail - Survey methods: Rail counts, walking transects, point counts, live trapping, canoe surveys - Habitats sampled: Dead end sloughs, tidal and non-tidal mudflats, shallow water, tidal marsh
Riparian	<ul style="list-style-type: none"> - Sampling schedule: Quarterly (January, April, July, and October) - Targeted species: Migratory and non-migratory birds, raptors, small mammals, amphibians - Survey methods: Walking transects, point counts, live trappings, pit fall traps - Habitats sampled: Riparian woodland, riparian scrub, shaded riverine aquatic

Water Quality	
To monitor water quality conditions at the breaches on a real-time basis.	<ul style="list-style-type: none"> - Sampling stations: Automated stations at each of the breach openings (2 stations) - Sampling schedule: Samples will be collected on a continuous basis year round - Measurements: spec. conduct., temperature, DO, pH, turbidity, stage, chlorophyll, wind speed, wind direction, solar radiation, air temperature, barometric pressure, humidity, and velocities.
To evaluate water quality conditions in different habitats	<ul style="list-style-type: none"> - Sampling stations: See map. - Sampling schedule: Four portable stations will collect samples on a continuous basis year round. Samples at the Deep Water Ship Channel and Miner Slough and comparison site will be taken monthly (coincident with phytoplankton, benthic, and organic carbon sampling). - Measurements: water temperature, specific conductance, pH, and dissolved oxygen.
Vegetation	
Characterize plant communities in different habitats and how they change over time. Document the ratio of native vs. exotic species.	<ul style="list-style-type: none"> - Take 1:24,000 color aerial photos during a low tide - Pre-delineate plant communities on photo survey - Ground truth and adjust delineation lines - Measure acreage of community types - Repeat each year at same time of year and tidal cycle for three consecutive years - Establish fixed transects - Tie transect locations with elevation survey sites (see bathymetry element) - Determine plant community values using stratified random sampling and permanent photo points: plant diversity, percent cover, and community structure
Establish whether plant communities are sustaining and functional	Correlate results of fish and wildlife monitoring elements with vegetation monitoring results.
Phytoplankton/Sediments/Nutrients	
<p>A. To evaluate phyto-plankton production, species composition and growth rates, nutrients and sediment concentrations and</p> <p>B. their flux to the Delta</p>	<p>A. Discrete Monitoring</p> <ul style="list-style-type: none"> - Sampling Stations: See map. - Sampling frequency: Samples will be collected year-round on a monthly basis - Measurements: Water samples will be taken for chlorophyll <i>a</i> concentration, phytoplankton species identification, nutrients and sediment. Primary production rates will be determined at an open and vegetated shallow water stations using on-board incubation chambers. - Ancillary water quality data: turbidity, secchi disk depth, dissolved oxygen, water temperature, specific conductance <p>B. Continuous Monitoring- Flux Study</p> <ul style="list-style-type: none"> - Chlorophyll <i>a</i> concentrations, sediments and nutrients will be measured daily for 2 weeks between April and September at the two levee breaches in association with the carbon flux study
Zooplankton	
To evaluate zooplankton species composition, mysid shrimp, and amphipods	<ul style="list-style-type: none"> - Sampling Stations: See map. - Sampling frequency: Samples will be collected year round on a monthly basis - Sampling gear: Clarke-Bumpus net, ski mounted Neomysis net or egg and larval net - Sampling procedures: For the three channel stations, zooplankton tows will be conducted on the bottom for five minutes, followed by five minutes in midwater. At the shallow shoal station (less than 2 meters deep), tows will be on the bottom for the entire 10 minutes. At all stations, pump samples will be taken from the bottom to the surface. - Laboratory procedures: Same as in the currently sponsored DFG Neomysis/Zooplankton Study - Ancillary Information Required: temperature, secchi disc depth, surface EC, and chlorophyll <i>a</i>

Benthic	
Evaluate benthic macro fauna and substrate composition	<p>A. Benthic Macro fauna Collection</p> <ul style="list-style-type: none"> - Sampling stations: See map. - Sampling frequency: Samples will be collected year-round on a monthly basis - Measurements: At each station, four benthic samples are collected from a boat using a Birge-Ekman Dredge, either pole mounted or cable mounted depending upon accessibility. The contents of each grab sample are then washed into a Standard No. 30 mesh screen (0.595 mm openings). Benthic data records the number of organisms per square meter. Organisms are identified mnemonically from phylum to species, and by life stage (larval, pupal, or adult). - Sampling procedures: Standard Methods 1005: 6 Ekman Grab - Laboratory analysis: Same as for D1485 Benthic sample analysis. <p>B. Substrate Samples</p> <ul style="list-style-type: none"> - Same sampling stations and sampling frequency as above. - Measurements: One liter of benthic substrate will be collected with the Birge-Ekman Dredge. - Laboratory analysis: Grain size analysis and organic matter content.
Bathymetry	
To monitor changes in different habitats and features within Prospect Island due to siltation and erosion.	<p>A. Baseline Survey</p> <p>A traverse around the perimeter will be established. Elevations will be established from the benchmark located on the bridge at Miner Slough. Cross-sections will be taken every 500 feet. A sounding rod and fathometer will be used to take soundings of flooded island at selected points.</p> <p>B. Establish baseline elevation of representative project features: berms, islands, levees, shallow water, excavated channel.</p> <p>C. Annual elevation surveys of same features to monitor: erosion, accretion, and subsidence.</p>
Organic Carbon	
To determine if the island is a source of organic carbon to the Delta	<ul style="list-style-type: none"> - Sampling stations: At the two breaches. - Sampling frequency: Daily for a 2-week period each month between April-September. - Measurements: ADCP Flow measurements. - Laboratory analysis: dissolved and particulate organic carbon, ultra-violet absorbance.
Quantify carbon and potential THM production	<ul style="list-style-type: none"> - Sampling stations: See map. - Sampling frequency: Monthly. THMFP and HAAFP two times per year. - Laboratory analysis: dissolved and particulate organic carbon, ultra-violet absorbance. THMFP, HAAFP and ammonia two times per year.

All data collection will conform to the IEP Quality Assurance and Quality Control Program for Collection and Evaluation of Environmental Data. For elements for which the monitoring programs do not have Quality Assurance Project Plans, QAPPs will be written.

Implementability:

The project and monitoring program have broad support from agencies and others. The monitoring program has been reviewed by several Interagency Ecological Program Work Teams (Resident Fish, Estuarine Ecological, Estuarine Monitoring) and their comments incorporated into the plan. Project leaders are continuing to meet with neighboring landowners to resolve their concerns. Environmental permits are currently being obtained for the project as a whole, including construction and monitoring. A draft Biological Assessment has been submitted to the USFWS and NMFS initiating Section 7 endangered species consultation. A draft Environmental Assessment/Initial study to fulfill CEQA/NEPA requirements for the project has undergone public review. This monitoring program has been coordinated with other monitoring programs in the Delta including a study of the ecological function of naturally flooded wetlands, a DFG study of shallow water utilization by delta smelt, the Yolo Bypass study and an analysis of existing data on shallow water habitat.

COSTS AND SCHEDULE

Costs for the design and construction of the project are approximately 6.25 million dollars (1.25 million dollars from Category III). Another 1.25 million dollars was obtained from Category III to set up an endowment fund, where the interest will be used for operations and maintenance of the project. This proposal is for approximately 2.3 million dollars for monitoring. The basis/need for CALFED funding for monitoring of this project is that CALFED will benefit from comprehensive monitoring of the Prospect Island project. This complete monitoring program would not be conducted without funding from CALFED because the proposed principal investigators for this monitoring would be reassigned to other projects with funding. It is not likely that the Interagency Ecological Program could fund a monitoring effort on this scale.

DWR would contract with Category III for this proposal and money would be transferred to DFG principal investigators through existing IEP interagency contracts.

Table 4. Cost Analyses for Monitoring Elements

Fish Monitoring

Project Task	Direct Labor (Hrs)	Direct Salary/ Benefits	Overhead Labor	Service Contract	Material and Acquisition	Misc and other direct costs	Total Cost
General species fish use	1,632 perm. 1,232 temp.	\$47,980	\$21,796	0	\$4,000	\$3,000	\$76,776
Estimate spawner use by smelt and splittail	1,408 perm. 1,600 temp.	\$53,748	\$25,216	0	\$8,000	\$11,200	\$98,164
Estimate larval rearing by smelt and splittail	3,904 perm. 3,008 temp.	\$108,824	\$47,740	0	\$2,000	\$3,200	\$161,764
Estimate salmon use	608 perm. 896 temp.	\$26,348	\$10,700	0	\$2,000	\$2,400	\$41,448
Total (year 1)	7,552 perm. 6,736 temp.	\$236,900	\$105,452	0	\$16,000	\$19,800	\$378,152
Total (year 2)	7,552 perm. 6,736 temp.	\$236,900	\$105,452	0	\$16,000	\$19,800	\$378,152
Total (year 3)	7,552 perm. 6,736 temp.	\$236,900	\$105,452	0	\$16,000	\$19,800	\$378,152
Total for 3 yrs	22,656 perm. 20,208 temp.	\$710,700	\$316,356	0	\$48,000	\$59,400	\$1,134,456

Wildlife Monitoring

Project Task	Direct Labor (Hrs)	Direct Salary/ Benefits	Overhead/ Labor	Service Contract	Material and Acquisition	Misc and other direct costs	Total Cost
Quantify/Qualify Wildlife Use in the Open Water Habitats	24 perm.	\$901	\$162	N/A	0	0	\$1,063
Quantify/Qualify Wildlife Use in the Mudflats and Emergent Marsh	480 perm. 480 temp.	\$10,244	\$2,121	N/A	0	\$1,500	\$13,865
Quantify/Qualify Wildlife Use in Riparian Areas	240 perm.	\$4,413	\$797	N/A	0	0	\$5,210
Total (year 1)	744 perm. 480 temp.	\$15,558	\$3,080	N/A	0	\$1,500	\$20,138
Total (year 2)	744 perm. 480 temp.	\$15,558	\$3,080	N/A	0	\$1,500	\$20,138
Total (year 3)	744 perm. 480 temp.	\$15,558	\$3,080	N/A	0	\$1,500	\$20,138
Total for 3 yrs	2,232 perm 1,440 temp	\$46,674	\$9,240	N/A	0	\$4,500	\$60,414

Water Quality Monitoring

Project Task	Direct Labor (Hrs)	Direct Salary/ Benefits	Overhead Labor	Service Contracts	Material and Acquisition	Misc	Total Cost
Characterize water quality at the levee breaches	200 perm.	\$10,000	\$4,800	0	\$35,000	0	\$49,800
Characterize water quality in different habitats	576 perm. 720 temp.	\$21,518	\$6,959	\$50,450	0	0	\$78,927
Total (year 1)	776 perm. 720 temp.	\$31,518	\$11,759	\$50,450	\$35,000	0	\$128,727
Total (year 2)	776 perm. 720 temp.	\$31,518	\$11,759	\$50,450	0	0	\$128,727
Total (year 3)	776 perm. 720 temp.	\$31,518	\$11,759	\$50,450	0	0	\$128,727
Total for 3 yrs	2328 perm 2160 temp.	\$94,554	\$35,277	\$151,350	\$35,000	0	\$316,181

Phytoplankton

Project Task	Direct Labor (Hrs)	Direct Salary/ Benefits	Overhead Labor	Service Contracts	Material and Acquisition	Misc and other direct costs	Total Cost
Quantify phytoplankton, nutrients and sediment in different habitats	352 perm.	\$7,000	\$7,000	\$20,352	0	0	\$34,352
Flux of phytoplankton, nutrients and sediment*	283 perm.	\$5,000	\$5,000	\$38,700	0	0	\$48,700
Total (year 1)	635 perm.	\$12,000	\$12,000	\$59,052	0	0	\$83,052
Total (year 2)	635 perm.	\$12,000	\$12,000	\$59,052	0	0	\$83,052
Total (year 3)	635 perm.	\$12,000	\$12,000	\$59,052	0	0	\$83,052
Total for 3 yrs	1905 perm.	\$36,000	\$36,000	\$177,156	0	0	\$249,156

*Complements organic carbon flux study.

Zooplankton

Project Task	Direct Labor (Hrs)	Direct Salary/ Benefits	Overhead Labor	Service Contracts	Material and Acquisition	Misc and other direct costs	Total Cost
Quantify/qualify zooplankton	345 perm.	\$6,374	\$1,447	0	0	\$3,050	\$10,871
Total (year 1)	345 perm.	\$6,374	\$1,447	0	0	\$3,050	\$10,871
Total (year 2)	345 perm.	\$6,374	\$1,447	0	0	\$3,050	\$10,871
Total (year 3)	345 perm.	\$6,374	\$1,447	0	0	\$3,050	\$10,871
Total for 3 yrs	1035 perm.	\$19,122	\$4,341	0	0	\$9,150	\$32,613

Vegetation Monitoring

Project Task	Direct Labor (Hrs)	Direct Salary/ Benefits	Overhead Labor	Service Contracts	Material and Acquisition	Misc and other direct costs	Total Cost
Characterize plant communities at specific sites	334 perm.	\$8,430	\$4,055	0	\$650	0	\$13,135
Establish whether plant communities are sustaining and functional	200 perm.	\$7,471	\$3,593	0	0	0	\$11,064
Total (year 1)	534 perm.	\$15,901	\$7,648	0	\$650	0	\$24,199
Total (year 2)	534 perm.	\$15,901	\$7,648	0	\$650	0	\$24,199
Total (year 3)	534 perm.	\$15,901	\$7,648	0	\$650	0	\$24,199
Total for 3 yrs	1602 perm.	\$47,703	\$22,944	0	\$1,950	0	\$72,597

Benthic Monitoring

Project Task	Direct Labor (Hrs)	Direct Salary/ Benefits	Overhead Labor	Service Contracts	Material and Acquisition	Misc and other direct costs	Total Cost
Monthly sampling	324 perm.	\$7,608	\$3,651	0	\$2,250	0	\$13,509
Macrobenthic ID	72 perm.	\$648	\$306	\$28,800	\$300	0	\$30,054
Soils Classification	0	0	0	\$6,840	\$75	0	\$6,915
Total (year 1)	396 perm.	\$8,256	\$3,957	\$35,640	\$2,625	0	\$50,478
Total (year 2)	396 perm.	\$8,256	\$3,957	\$35,640	0	0	\$47,853
Total (year 3)	396 perm.	\$8,256	\$3,957	\$35,640	0	0	\$47,853
Total for 3 yrs	1188 perm.	\$24,768	\$11,871	\$106,920	\$2,625	0	\$146,184

Bathymetry Monitoring

Project Task	Direct Labor (Hrs)	Direct Salary/ Benefits	Overhead Labor	Service Contracts	Material and Acquisition	Misc and other direct costs	Total Cost
Baseline survey	352 perm.	\$12,200	\$9,900	0	\$10,000	\$2,900	\$35,000
Annual Surveys	264 perm.	\$9,200	\$7,500	0	\$3,300	\$1,000	\$21,000
Total (year 1)	616 perm.	\$21,400	\$17,400	0	\$13,300	\$3,900	\$56,000
Total (year 2)	264 perm.	\$9,200	\$7,500	0	\$3,300	\$1,000	\$21,000
Total (year 3)	264 perm.	\$9,200	\$7,500	0	\$3,300	\$1,000	\$21,000
Total for 3 yrs	1,144 perm	\$39,800	\$32,400	0	\$19,900	\$5,900	\$98,000

Organic Carbon Monitoring

Project Task	Direct Labor (Hrs)	Direct Salary/ Benefits	Overhead Labor	Service Contracts	Material and Acquisition	Misc and other direct costs	Total Cost
Flux of organic carbon at levee breaches	168 perm.	\$4,120	\$1,070	\$41,040	\$25,000	0	\$71,230
Quantify organic carbon and potential THM production	525 perm.	\$12,300	\$3,240	\$14,350	0	0	\$29,890
Total (year 1)	693 perm.	\$16,420	\$4,310	\$55,390	\$25,000	0	\$101,120
Total (year 2)	525 perm.	\$12,300	\$3,240	\$55,390	0	0	\$70,930
Total (year 3)	525 perm.	\$12,300	\$3,240	\$55,390	0	0	\$70,930
Total for 3 yrs	1743 perm	\$41,020	\$10,790	\$166,170	\$25,000	0	\$242,980

Schedule Milestones:

Monitoring begins November 2000. The first year of monitoring will include a trial of different equipment types for some of the monitoring elements. By November 2001 (one year of monitoring), there will be an annual report to CALFED. Quarterly reports will be published in the IEP Newsletter. The second year of monitoring ends November 2002. The third year of monitoring ends November 2003.

Third Party Impacts: No third party impacts are expected.

APPLICANT QUALIFICATIONS

Program Coordination

Leo Winternitz (DWR) is the program coordinator. He will coordinate the individual monitoring elements. Although the principal investigators are responsible for reporting on the individual elements, the program coordinator will integrate all elements into comprehensive annual reports.

Leo Winternitz: B.A. in Biology and M.S. in Environmental Management. Environmental Program Manager I with DWR. Relevant experience includes: administering major portions of the \$2 million Sacramento-San Joaquin Ecological Studies Project Agreement between DWR and DFG; participating as a member of the Delta Native Fishes Recovery Team chaired by Dr. Peter Moyle whereby recovery objectives for seven species of native fish were developed; acting as DWR's program manager for the Prospect Island Restoration Project; supervising the Interagency Section of the Ecological Studies Branch within DWR for five years; and currently overseeing the Monitoring and Analysis Branch of DWR's Environmental Services Office which includes the Bay-Delta Section and the Water Quality Control Systems Section.

Fisheries Monitoring: Field work to be conducted by one DFG biologist and two scientific aides. Data analysis and report writing to be prepared by:

Dale Sweetnam: M.S. Biology and B.A. Biology.

Associate Marine Biologist with DFG

11 years experience in the Delta including the design, collection, analysis, and interpretation of data.

Randy Baxter: M.S. Natural Resources and B.S. Biology

Associate Marine Biologist with DFG

10 years of experience in the Delta as the lead biologist for the Delta Outflow/SF Bay Study including data compilation, analysis, and interpretation of fisheries data.

Wildlife Monitoring: Field work to be conducted by one DFG biologist and one scientific aide. Data analysis and report writing to be prepared by:

Laurie Briden: B.A. Environmental Biology

Associate Wildlife Biologist with DFG

12 years of experience conducting threatened and endangered avian, mammalian, and herp field surveys

Laureen Thompson: B.S. Wildlife and Fisheries Biology

Range B Wildlife Biologist with DFG

7 years of technical and practical experience with the identification, management and collection of ecological data associated with avian, and mammal species. Experience includes implementing wildlife surveys, inventories, and scientific research projects and 3 years conducting threatened and endangered avian, mammalian, and herp field surveys.

Water quality: Field work to be conducted by one DWR Control Systems Engineer, one biologist, and one scientific aide. Data analysis and report writing to be prepared by Katie Wadsworth.

Katie Wadsworth: M.S. Environmental Science and B.S. Environmental Biology
Environmental Specialist III
5 years of experience in the Delta, including the design, collection, analysis, and interpretation of data.

Vegetation: Field work to be conducted by one DWR biologist and one scientific aide. Data analysis and report writing to be prepared by:

Jean Witzman: M.S. Botany and B.A. Biology Education
Environmental Specialist III with DWR
10 years experience as a professional botanist; experience in vegetation mapping, sensitive plant surveys, collection of ecological data; monitoring species and plant community response to project operations; wetland delineation; and permitting and report writing for environmental compliance.

Kent Nelson: B.S. Wildlife and Fisheries Biology
Recreation and Wildlife Resources Advisor with DWR
Eight years of experience on the Delta Flood Protection Program (SB 34), a \$12 million per year program to provide improved flood protection through levee maintenance and improvement, including comprehensive biological monitoring programs to determine benefits for fish and wildlife resources.

Phytoplankton/Sediments/Nutrients: Field work to be conducted by one DWR biologist and one scientific aide. Data analysis and report writing to be prepared by:

Peggy Lehman: Ph.D. Ecology (aquatic ecology), M.S. Ecology,
B.S. Renewable Natural Resources
Environmental Specialist IV with DWR
15 years experience water quality and algal biomass and species composition issues in the Sacramento-San Joaquin Delta. Published reports and peer-reviewed journal articles on long-term trends in phytoplankton ecology and water quality.

Zooplankton: Field work to be conducted by one DWR biologist and one scientific aide. Data analysis and report writing to be prepared by:

James J. Orsi: M.S. Marine Fisheries, B.S. Biology
Senior Specialist, DFG
26 years experience as the project leader for Neomysis and zooplankton studies in the Sacramento-San Joaquin Estuary. Author of 14 published articles on mysid shrimp and zooplankton and 3 articles on fish.

Benthic Community Monitoring: Field work to be conducted by one DWR biologist and one scientific aide. Data analysis and report writing to be prepared by:

Heather Peterson: B.S. Resource Science, Natural Resources Fellowship 1996 (Estuary Ecology)UC Davis
Environmental Specialist, DWR
5 years experience as lead biologist for the DWR D-1485 Water quality and benthic monitoring project.

Bathymetry: Field work to be conducted by two DWR engineers and one scientific aide. Data analysis and report writing to be prepared by:

Howard Mann: B.S. Civil Engineering
Senior Engineer, DWR
23 years experience including surveying, operation and maintenance of gauging stations, managing various scour monitoring programs, performing channel bottom soundings and other special studies in the Delta.

Organic Carbon: Field work to be conducted by one DWR biologist and one scientific aide. Data analysis and report writing to be prepared by:

Peggy Lehman: Ph.D. Ecology. Environmental Specialist IV.
15 years experience in water quality in the Sacramento-San Joaquin Delta including studies in food-web ecology. (see also Phytoplankton).

Collette Zemitis: M.S. Agricultural and Environmental Chemistry and B.S. Biology.
Environmental Specialist III with DWR
4 years experience in Municipal Water Quality Investigations unit studying organic carbon and disinfection by-product precursors in the Sacramento-San Joaquin Delta.

COMPLIANCE WITH STANDARD TERMS AND CONDITIONS

DI-2010
Standard Form 424

U.S. Department of the Interior

**Certifications Regarding Debarment, Suspension and
Other Responsibility Matters, Drug-Free Workplace
Requirements and Lobbying**

Persons signing this form should refer to the regulations referenced below for complete instructions:

Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transactions - The prospective primary participant further agrees by submitting this proposal that it will include the clause titled, "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions. See below for language to be used or use this form for certification and sign. (See Appendix A of Subpart D of 43 CFR Part 12.)

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions - (See Appendix B of Subpart D of 43 CFR Part 12.)

Certification Regarding Drug-Free Workplace Requirements - Alternate I. (Grantees Other Than Individuals) and Alternate II. (Grantees Who are Individuals) - (See Appendix C of Subpart D of 43 CFR Part 12)

Signature on this form provides for compliance with certification requirements under 43 CFR Parts 12 and 18. The certifications shall be treated as a material representation of fact upon which reliance will be placed when the Department of the Interior determines to award the covered transaction, grant, cooperative agreement or loan.

PART A: Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transactions

CHECK IF THIS CERTIFICATION IS FOR A PRIMARY COVERED TRANSACTION AND IS APPLICABLE

- (1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:
- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any Federal department or agency;
 - (b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
 - (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
 - (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
- (2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.
-

PART B: Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions

CHECK IF THIS CERTIFICATION IS FOR A LOWER TIER COVERED TRANSACTION AND IS APPLICABLE

- (1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- (2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

DI-2010
 June 1998
 (This form replaces DI-1953, DI-1954,
 DI-1955, DI-1956 and DI-1957)

PART C: Certification Regarding Drug-Free Workplace Requirements

CHECK ☒ IF THIS CERTIFICATION IS FOR AN APPLICANT WHO IS NOT AN INDIVIDUAL.

Alternate I. (Grantees Other Than Individuals)

A. The grantee certifies that it will or continue to provide a drug-free workplace by:

- (a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition;
- (b) Establishing an ongoing drug-free awareness program to inform employees about—
 - (1) The dangers of drug abuse in the workplace;
 - (2) The grantee's policy of maintaining a drug-free workplace;
 - (3) Any available drug counseling, rehabilitation, and employee assistance programs; and
 - (4) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;
- (c) Making it a requirement that each employee to be engaged in the performance of the grant be given a copy of the statement required by paragraph (a);
- (d) Notifying the employee in the statement required by paragraph (a) that, as a condition of employment under the grant, the employee will —
 - (1) Abide by the terms of the statement; and
 - (2) Notify the employer in writing of his or her conviction for a violation of a criminal drug statute occurring in the workplace no later than five calendar days after such conviction;
- (e) Notifying the agency in writing, within ten calendar days after receiving notice under subparagraph (d)(2) from an employee or otherwise receiving actual notice of such conviction. Employers of convicted employees must provide notice, including position title, to every grant officer on whose grant activity the convicted employee was working, unless the Federal agency has designated a central point for the receipt of such notices. Notice shall include the identification number(s) of each affected grant;
- (f) Taking one of the following actions, within 30 calendar days of receiving notice under subparagraph (d)(2), with respect to any employee who is so convicted —
 - (1) Taking appropriate personnel action against such an employee, up to and including termination, consistent with the requirements of the Rehabilitation Act of 1973, as amended; or
 - (2) Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency;
- (g) Making a good faith effort to continue to maintain a drug-free workplace through implementation of paragraphs (a) (b), (c), (d), (e) and (f).

B. The grantee may insert in the space provided below the site(s) for the performance of work done in connection with the specific grant:

Place of Performance (Street address, city, county, state, zip code)

3251 "S" St. Sac., CA Sac. County 95816

Check ☐ if there are workplaces on file that are not identified here.

PART D: Certification Regarding Drug-Free Workplace Requirements

CHECK ☐ IF THIS CERTIFICATION IS FOR AN APPLICANT WHO IS AN INDIVIDUAL.

Alternate II. (Grantees Who Are Individuals)

- (a) The grantee certifies that, as a condition of the grant, he or she will not engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance in conducting any activity with the grant;
- (b) If convicted of a criminal drug offense resulting from a violation occurring during the conduct of any grant activity, he or she will report the conviction, in writing, within 10 calendar days of the conviction, to the grant officer or other designee, unless the Federal agency designates a central point for the receipt of such notices. When notice is made to such a central point, it shall include the identification number(s) of each affected grant.

DI-2010
June 1995
(This form replaces DI-1953, DI-1954,
DI-1955, DI-1956 and DI-1957)

PART E: Certification Regarding Lobbying
Certification for Contracts, Grants, Loans, and Cooperative Agreements

CHECK IF CERTIFICATION IS FOR THE AWARD OF ANY OF THE FOLLOWING AND THE AMOUNT EXCEEDS \$100,000: A FEDERAL GRANT OR COOPERATIVE AGREEMENT; SUBCONTRACT, OR SUBGRANT UNDER THE GRANT OR COOPERATIVE AGREEMENT.

CHECK IF CERTIFICATION IS FOR THE AWARD OF A FEDERAL LOAN EXCEEDING THE AMOUNT OF \$150,000, OR A SUBGRANT OR SUBCONTRACT EXCEEDING \$100,000, UNDER THE LOAN.

The undersigned certifies, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, and officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

As the authorized certifying official, I hereby certify that the above specified certifications are true.



SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL

Dr. Randall L. Brown, CEA III

TYPED NAME AND TITLE

DATE

6/30/98

DI-2010
June 1995
(This form replaces DI-1952, DI-1964,
DI-1966, DI-1968 and DI-1983)

Figure 1
Standard Form 424

APPLICATION FOR
FEDERAL ASSISTANCE

OMB Approval No. 0348-0043

1. TYPE OF SUBMISSION: Application <input type="checkbox"/> Construction <input type="checkbox"/> Construction <input type="checkbox"/> Non-Construction <input type="checkbox"/> Non-Construction		2. DATE SUBMITTED	Applicant Identifier N/A
		3. DATE RECEIVED BY STATE N/A	State Application Identifier N/A
		4. DATE RECEIVED BY FEDERAL AGENCY	Federal Identifier
5. APPLICANT INFORMATION			
Legal Name: CA Dept. Water Resources		Organizational Unit: Environmental Services Office	
Address (give city, county, state, and zip code): 3251 "S" St. Sacramento Sac, CA 95816 County		Name and telephone number of person to be contacted on matters involving this application (give area code): Leo Winternitz (916) 227-7548	
6. EMPLOYER IDENTIFICATION NUMBER (EIN): 94-6355570		7. TYPE OF APPLICANT: (enter appropriate letter in box) [A]	
8. TYPE OF APPLICATION: <input checked="" type="checkbox"/> New <input type="checkbox"/> Continuation <input type="checkbox"/> Revision If Revision, enter appropriate letter(s) in box(es) <input type="checkbox"/> <input type="checkbox"/> A. Increase Award B. Decrease Award C. Increase Duration D. Decrease Duration Other (specify):		A. State B. County C. Municipal D. Township E. Interstate F. Intermunicipal G. Special District H. Independent School Dist. I. State Controlled Institution of Higher Learning J. Private University K. Indian Tribe L. Individual M. Profit Organization N. Other (Specify):	
10. CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER: TITLE: N/A		9. NAME OF FEDERAL AGENCY: Fish and Wildlife Service	
12. AREAS AFFECTED BY PROJECT (Cities, Counties, States, etc.): Solano County		11. DESCRIPTIVE TITLE OF APPLICANT'S PROJECT: Prospect Island Habitat Restoration Monitoring Program	
13. PROPOSED PROJECT		14. CONGRESSIONAL DISTRICTS OF:	
Start Date 11/01/00	Ending Date 11/01/03	a. Applicant 3, 5	b. Project 3
15. ESTIMATED FUNDING:		16. IS APPLICATION SUBJECT TO REVIEW BY STATE EXECUTIVE ORDER 12372 PROCESS?	
a. Federal	\$ 2,353,000 .00	a. YES: THIS PREAPPLICATION/APPLICATION WAS MADE AVAILABLE TO THE STATE EXECUTIVE ORDER 12372 PROCESS FOR REVIEW ON: DATE _____	
b. Applicant	\$.00	b. NO <input type="checkbox"/> PROGRAM IS NOT COVERED BY E.O. 12372 <input type="checkbox"/> OR PROGRAM HAS NOT BEEN SELECTED BY STATE FOR REVIEW	
c. State	\$.00	17. IS THE APPLICANT DELINQUENT ON ANY FEDERAL DEBT?	
d. Local	\$.00	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
e. Other	\$.00		
f. Program Income	\$.00		
g. TOTAL	\$ 2,353,000 .00		
18. TO THE BEST OF MY KNOWLEDGE AND BELIEF, ALL DATA IN THIS APPLICATION/PREAPPLICATION ARE TRUE AND CORRECT. THE DOCUMENT HAS BEEN DULY AUTHORIZED BY THE GOVERNING BODY OF THE APPLICANT AND THE APPLICANT WILL COMPLY WITH THE ATTACHED ASSURANCES IF THE ASSISTANCE IS AWARDED.			
a. Type Name of Authorized Representative Dr. Randall L. Brown		b. Title Chief, Environmental Services Office	c. Telephone Number 227-7531
d. Signature of Authorized Representative RL Brown		e. Date Signed 6/30/98	

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Standard Form 424 (REV. 8-82)
Prescribed by GSA Circular A-102

1 - 0 0 9 2 0 6

I-009206

Figure 4

Standard Form 424A (cont'd.)

SECTION C - NON-FEDERAL RESOURCES				
(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e) TOTALS
8.	\$	\$	\$	\$
9.				
10.				
11.				
12. TOTAL (sum of lines 8 - 11)	\$	\$	\$	\$

SECTION D - FORECASTED CASH NEEDS					
	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal	\$	\$	\$	\$	\$
14. NonFederal					
15. TOTAL (sum of lines 13 and 14)	\$	\$	\$	\$	\$

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT				
(a) Grant Program	FUTURE FUNDING PERIODS (Years)			
	(b) First	(c) Second	(d) Third	(e) Fourth
16. November 1, 2000 - 11/01/01	\$ 213,000	\$ 213,000	\$ 213,000	\$ 213,000
17. 11/01/01 - 11/01/02	187,500	187,500	187,500	187,500
18. 11/01/02 - 11/01/03	187,500	187,500	187,500	187,500
19.				
20. TOTAL (sum of lines 16-19)	\$ 588,000	\$ 588,000	\$ 588,000	\$ 588,000

SECTION F - OTHER BUDGET INFORMATION	
21. Direct Charges: 2,353,000	22. Indirect Charges: 0
23. Remarks:	

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Standard Form 424A (Rev. 4-92) Page 2

1-009207

1-009207

Figure 1
Standard Form 424 (cont'd.)

INSTRUCTIONS FOR THE SF 424

Public reporting burden for this collection of information is estimated to average 45 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0043), Washington, DC 20503.

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET, SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

This is a standard form used by applicants as a required facesheet for preapplications and applications submitted for Federal assistance. It will be used by Federal agencies to obtain applicant certification that States which have established a review and comment procedure in response to Executive Order 12372 and have selected the program to be included in their process, have been given an opportunity to review the applicant's submission.

- | Item: | Entry: | Item: | Entry: |
|-------|--|-------|--|
| 1. | Self-explanatory. | 12. | List only the largest political entities affected (e.g., State, counties, cities). |
| 2. | Date application submitted to Federal agency (or State if applicable) & applicant's control number (if applicable). | 13. | Self-explanatory. |
| 3. | State use only (if applicable). | 14. | List the applicant's Congressional District and any District(s) affected by the program or project. |
| 4. | If this application is to continue or revise an existing award, enter present Federal identifier number. If for a new project, leave blank. | 15. | Amount requested or to be contributed during the first funding/budget period by each contributor. Value of in-kind contributions should be included on appropriate lines as applicable. If the action will result in a dollar change to an existing award, indicate <i>only</i> the amount of the change. For decreases, enclose the amounts in parentheses. If both basic and supplemental amounts are included, show breakdown on an attached sheet. For multiple program funding, use totals and show breakdown using same categories as item 15. |
| 5. | Legal name of applicant, name of primary organizational unit which will undertake the assistance activity, complete address of the applicant, and name and telephone number of the person to contact on matters related to this application. | 16. | Applicants should contact the State Single Point of Contact (SPOC) for Federal Executive Order 12372 to determine whether the application is subject to the State intergovernmental review process. |
| 6. | Enter Employer Identification Number (EIN) as assigned by the Internal Revenue Service. | 17. | This question applies to the applicant organization, not the person who signs as the authorized representative. Categories of debt include delinquent audit disallowances, loans and taxes. |
| 7. | Enter the appropriate letter in the space provided. | 18. | To be signed by the authorized representative of the applicant. A copy of the governing body's authorization for you to sign this application as official representative must be on file in the applicant's office. (Certain Federal agencies may require that this authorization be submitted as part of the application.) |
| 8. | Check appropriate box and enter appropriate letter(s) in the space(s) provided:
— "New" means a new assistance award.
— "Continuation" means an extension for an additional funding/budget period for a project with a projected completion date.
— "Revision" means any change in the Federal Government's financial obligation or contingent liability from an existing obligation. | | |
| 9. | Name of Federal agency from which assistance is being requested with this application. | | |
| 10. | Use the Catalog of Federal Domestic Assistance number and title of the program under which assistance is requested. | | |
| 11. | Enter a brief descriptive title of the project. If more than one program is involved, you should append an explanation on a separate sheet. If appropriate (e.g., construction or real property projects), attach a map showing project location. For preapplications, use a separate sheet to provide a summary description of this project. | | |

Figure 2
Standard Form 424A (cont'd.)

INSTRUCTIONS FOR THE SF-424A

Public reporting burden for this collection of information is estimated to average 180 minutes per response, including time for reviewing instructions; searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0044), Washington, DC 20503.

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET, SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

General Instructions

This form is designed so that application can be made for funds from one or more grant programs. In preparing the budget, adhere to any existing Federal grantor agency guidelines which prescribe how and whether budgeted amounts should be separately shown for different functions or activities within the program. For some programs, grantor agencies may require budgets to be separately shown by function or activity. For other programs, grantor agencies may require a breakdown by function or activity. Sections A, B, C, and D should include budget estimates for the whole project except when applying for assistance which requires Federal authorization in annual or other funding period increments. In the latter case, Sections A, B, C, and D should provide the budget for the first budget period (usually a year) and Section E should present the need for Federal assistance in the subsequent budget periods. All applications should contain a breakdown by the object class categories shown in Lines a-k of Section B.

Section A. Budget Summary Lines 1-4 Columns (a) and (b)

For applications pertaining to a single Federal grant program (Federal Domestic Assistance Catalog number) and *not* requiring a functional or activity breakdown, enter on Line 1 under Column (a) the catalog program title and the catalog number in Column (b).

For applications pertaining to a single program requiring budget amounts by multiple functions or activities, enter the name of each activity or function on each line in Column (a), and enter the catalog number in Column (b). For applications pertaining to multiple programs where none of the programs require a breakdown by function or activity, enter the catalog program title on each line in Column (a) and the respective catalog number on each line in Column (b).

For applications pertaining to multiple programs where one or more programs require a breakdown by function or activity, prepare a separate sheet for each program requiring the breakdown. Additional sheets should be used when one form does not provide adequate space for all breakdown of data required. However, when more than one sheet is used, the first page should provide the summary totals by programs.

Lines 1-4, Columns (c) through (g)

For new applications, leave Columns (c) and (d) blank. For each line entry in Columns (a) and (b), enter in Columns (e), (f), and (g) the appropriate amounts of funds needed to support the project for the first funding period (usually a year).

For continuing grant program applications, submit these forms before the end of each funding period as required by the grantor agency. Enter in Columns (c) and (d) the estimated amounts of funds which will remain unobligated at the end of the grant funding period only if the Federal grantor agency instructions provide for this. Otherwise, leave these columns blank. Enter in columns (e) and (f) the amounts of funds needed for the upcoming period. The amount(s) in Column (g) should be the sum of amounts in Columns (c) and (f).

For supplemental grants and changes to existing grants, do not use Columns (c) and (d). Enter in Column (e) the amount of the increase or decrease of Federal funds and enter in Column (f) the amount of the increase or decrease of non-Federal funds. In Column (g) enter the new total budgeted amount (Federal and non-Federal) which includes the total previous authorized budgeted amounts plus or minus, as appropriate, the amounts shown in Columns (c) and (f). The amount(s) in Column (g) should not equal the sum of amounts in Columns (c) and (f).

Line 5—Show the totals for all columns used.

Section B Budget Categories

In the column headings (1) through (4), enter the titles of the same programs, functions, and activities shown on Lines 1-4, Column (a), Section A. When additional sheets are prepared for Section A, provide similar column headings on each sheet. For each program, function or activity, fill in the total requirements for funds (both Federal and non-Federal) by object class categories.

Lines 6a-i—Show the totals of Lines 6a to 6h, in each column.

Line 6j—Show the amount of indirect cost.

Line 6k—Enter the total of amounts on Lines 6i and 6j. For all applications for new grants and continuation grants the total amount in column (5), Line 6k, should be the same as the total amount shown in Section A, Column (g), Line 5. For supplemental grants and changes to grants, the total amount of the increase or decrease as shown in Columns (1)-(4), Line 6k should be the same as the sum of the amounts in Section A, Columns (c) and (f) on Line 5.

Line 7—Enter the estimated amount of income, if any, expected to be generated from this project. Do not add or subtract this amount from the total project amount. Show under the program

Figure 2
Standard Form 424A

BUDGET INFORMATION - Non-Construction Programs

OMB Approval No. 0348-0044

SECTION A - BUDGET SUMMARY						
Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. Monitoring		\$	\$	\$ 2,353,000	\$	\$
2.						
3.						
4.						
5. Totals		\$	\$	\$ 2,353,000	\$	\$

SECTION B - BUDGET CATEGORIES					
6. Object Class Categories	GRANT PROGRAM FUNCTION OR ACTIVITY				Total (5)
	(1)	(2)	(3)	(4)	
a. Personnel			\$ 1,539,560		
b. Fringe Benefits					
c. Travel					
d. Equipment			132,000		
e. Supplies					
f. Contractual			601,600		
g. Construction					
h. Other			79,840		
i. Total Direct Charges (sum of 6a-6h)					
j. Indirect Charges					
k. TOTALS (sum of 6i and 6j)	\$	\$	\$ 2,353,000	\$	\$

7. Program Income	\$	\$	\$	\$	\$
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Standard Form 424A (Rev. 4-92)
Prescribed by OMB Circular A-102

1-009210

1-009210

Figure 3
Standard Form 424B

OMB Approval No. 0348-0040

ASSURANCES — NON-CONSTRUCTION PROGRAMS

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0040), Washington, DC 20503.

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET, SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

NOTE: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant I certify that the applicant:

1. Has the legal authority to apply for Federal assistance and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project cost) to ensure proper planning, management and completion of the project described in this application.
2. Will give the awarding agency, the Comptroller General of United States, and if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
4. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U. S. C. §4728-4763) relating to prescribed standards for merit systems for programs funded under one of the nineteen statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U. S. C. §1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U. S. C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U. S. C. §6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. 290 dd-3 and 290 ee-3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.
7. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for a fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
8. Will comply, as applicable, with provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.

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Standard Form 424B (Rev. 6/92)
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Figure 2
Standard Form 424A (cont'd.)

INSTRUCTIONS FOR THE SF-424A (continued)

narrative statement the nature and source of income. The estimated amount of program income may be considered by the federal grantor agency in determining the total amount of the grant.

Section C. Non-Federal Resources

Lines 8-11 Enter amounts of non-Federal resources that will be used on the grant. If in-kind contributions are included, provide a brief explanation on a separate sheet.

Column (a) - Enter the program titles identical to Column (a), Section A. A breakdown by function or activity is not necessary.

Column (b) - Enter the contribution to be made by the applicant.

Column (c) - Enter the amount of the State's cash and in-kind contribution if the applicant is not a State or State agency. Applicants which are a State or State agencies should leave this column blank.

Column (d) - Enter the amount of cash and in-kind contributions to be made from all other sources.

Column (e) - Enter totals of Columns (b), (c), and (d).

Line 12—Enter the total for each of Columns (b)-(e). The amount in Column (e) should be equal to the amount on Line 5, Column (f) Section A.

Section D. Forecasted Cash Needs

Line 13 - Enter the amount of cash needed by quarter from the grantor agency during the first year.

Line 14 - Enter the amount of cash from all other sources needed by quarter during the first year.

Line 15 - Enter the totals of amounts on Lines 13 and 14.

Section E. Budget Estimates of Federal Funds Needed for Balance of the Project

Lines 16-19 - Enter in Column (a) the same grant program titles shown in Column (a), Section A. A breakdown by function or activity is not necessary. For new applications and continuation grant applications, enter in the proper columns amounts of Federal funds which will be needed to complete the program or project over the succeeding funding periods (usually in years). This section need not be completed for revisions (amendments, changes, or supplements) to funds for the current year of existing grants.

If more than four lines are needed to list the program titles, submit additional schedules as necessary.

Line 20 - Enter the total for each of the Columns (b)-(e). When additional schedules are prepared for this Section, annotate accordingly and show the overall totals on this line.

Section F. Other Budget Information

Line 21 - Use this space to explain amounts for individual direct object-class cost categories that may appear to be out of the ordinary or to explain the details as required by the Federal grantor agency.

Line 22 - Enter the type of indirect rate (provisional, predetermined, final or fixed) that will be in effect during the funding period, the estimated amount of the base to which the rate is applied, and the total indirect expense.

Line 23 - Provide any other explanations or comments deemed necessary.

Figure 3
Standard Form 424B (cont'd.)

9. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a - 7), the Copeland Act (40 U.S.C. §§276c and 18 U. S. C. §§874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333), regarding labor standards for Federally assisted construction subagreements.
10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clear Air) Implementation Plans under Section 176(c) of the Clear Air Act of 1955, as amended (42 U.S.C. §§ 7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended, (P.L. 93-523); and (h) protection of endangered species under the Endangered Species Act of 1973, as amended, (P.L. 93-205).
12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
13. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. 470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. 469a-1 et seq.).
14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.
15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. 2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.
16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§ 4801 et seq.) which prohibits the use of lead based paint in construction or rehabilitation of residence structures.
17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act of 1984 or OMB Circular No. A-133, Audits of Institutions of Higher Learning and other Non-profit Institutions.
18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations and policies governing this program.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL <i>R. L. Brown</i>		TITLE <i>CEA-III</i>	
APPLICANT ORGANIZATION <i>Cal. Dept. Water Resources</i>		DATE SUBMITTED <i>6/30/98</i>	

Standard Form 424B (Rev. 4/92) back

Figure 4
Standard Form 424C

BUDGET INFORMATION — Construction Programs				OMB Approval No. 0348-0041
NOTE: Certain Federal assistance programs require additional computations to arrive at the Federal share of project costs eligible for participation. If such is the case you will be notified.				
COST CLASSIFICATION	a. Total Cost	b. Costs Not Allowable for Participation	c. Total Allowable Costs (Column a-b)	
1. Administrative and legal expenses	\$.00	\$.00	\$.00	
2. Land, structures, rights-of-way, appraisals, etc.	\$.00	\$.00	\$.00	
3. Relocation expenses and payments	\$.00	\$.00	\$.00	
4. Architectural and engineering fees	\$.00	\$.00	\$.00	
5. Other architectural and engineering fees	\$.00	\$.00	\$.00	
6. Project inspection fees	\$.00	\$.00	\$.00	
7. Site work	\$.00	\$.00	\$.00	
8. Demolition and removal	\$.00	\$.00	\$.00	
9. Construction	\$.00	\$.00	\$.00	
10. Equipment	\$.00	\$.00	\$.00	
11. Miscellaneous	\$.00	\$.00	\$.00	
12. SUBTOTAL (sum of lines 1-11)	\$.00	\$.00	\$.00	
13. Contingencies	\$.00	\$.00	\$.00	
14. SUBTOTAL	\$.00	\$.00	\$.00	
15. Project (program) income	\$.00	\$.00	\$.00	
16. TOTAL PROJECT COSTS (subtract #15 from #14)	\$.00	\$.00	\$.00	
FEDERAL FUNDING				
17. Federal assistance requested, calculate as follows: (Consult Federal agency for Federal percentage share) Enter the resulting Federal share.	Enter eligible costs from line 16c. Multiply X ____ %			\$.00

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Standard Form 424C (Rev. 4-92)
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I-009214

I-009214

Figure 4
Standard Form 424C (cont'd.)

INSTRUCTIONS FOR THE SF 424C

Public reporting burden for this collection of information is estimated to average 180 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0041), Washington, DC 20503.

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

This sheet is to be used for the following types of applications: (1) "New" (means a new [previous-unfunded] assistance award); (2) "Continuation" (means funding in a succeeding budget period which stemmed from a prior agreement to fund); and (3) "Revised" (means any changes in the Federal government's financial obligations or contingent liability from an existing obligation). If there is no change in the award amount there is no need to complete this form. Certain Federal agencies may require only an explanatory letter to the effect minor (no cost) changes. If you have questions please contact the Federal agency.

Column a.—If this is an application for a "New" project, enter the total estimated cost of each of the items listed on lines 1 through 16 (as applicable) under "COST CLASSIFICATIONS."

If this application entails a change to an existing award, enter the eligible amounts *approved under the previous award* for the items under "COST CLASSIFICATION."

Column b.—If this is an application for a "New" project, enter that portion of the cost of each item in Column a. which is *not* allowable for Federal assistance. Contact the Federal agency for assistance in determining the allowability of specific costs.

If this application entails a change to an existing award, enter the adjustment (+ or -) to the previously approved costs (from column a.) reflected in this application.

Column c.—This is the net of lines 1 through 16 in columns "a" and "b."

Line 1—Enter estimated amounts needed to cover administrative expenses. Do not include costs which are related to the normal functions of government. Allowable legal costs are generally only those associated with the purchase of land which is allowable for Federal participation and certain services in support of construction of the project.

Line 2—Enter estimated site and right(s)-of-way acquisition costs (this includes purchase, lease, and/or easements).

Line 3—Enter estimated costs related to relocation advisory assistance, replacement housing, relocation payments to displaced persons and businesses, etc.

Line 4—Enter estimated basic engineering fees related to construction (this includes start-up services and preparation of project performance work plan).

Line 5—Enter estimated engineering costs, such as surveys, tests, soil borings, etc.

Line 6—Enter estimated engineering inspection costs.

Line 7—Enter estimated costs of site preparation and restoration which are not included in the basic construction contract.

Line 9—Enter estimated cost of the construction contract.

Line 10—Enter estimated cost of office, shop, laboratory, safety equipment, etc. to be used at the facility, if such costs are not included in the construction contract.

Line 11—Enter estimated miscellaneous costs.

Line 12—Total of items 1 through 11.

Line 13—Enter estimated contingency costs. (Consult the Federal agency for the percentage of the estimated construction cost to use.)

Line 14—Enter the total of lines 12 and 13.

Line 15—Enter estimated program income to be earned during the grant period, e.g., salvaged materials, etc.

Line 16—Subtract line 15 from line 14.

Line 17—This block is for the computation of the Federal share. Multiply the total allowable project costs from line 16, column "c." by the Federal percentage share (this may be up to 100 percent; consult Federal agency for Federal percentage share) and enter the product on line 17.

SF 424C (Rev. 4-92) Back

Figure 5
Standard Form 424D

OMB Approval No. 0348-0042

ASSURANCES — CONSTRUCTION PROGRAMS

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0042), Washington, DC 20503

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET, SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

NOTE: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the Awarding Agency. Further, certain Federal assistance awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant I certify that the applicant:

1. Has the legal authority to apply for Federal assistance, and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project costs) to ensure proper planning, management and completion of the project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States, and if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the assistance; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will not dispose of, modify the use of, or change the terms of the real property title, or other interest in the site and facilities without permission and instructions from the awarding agency. Will record the Federal interest in the title of real property in accordance with awarding agency directives and will include a covenant in the title of real property acquired in whole or in part with Federal assistance funds to assure non-discrimination during the useful life of the project.
4. Will comply with the requirements of the assistance awarding agency with regard to the drafting, review and approval of construction plans and specifications.
5. Will provide and maintain competent and adequate engineering supervision at the construction site to ensure that the complete work conforms with the approved plans and specifications and will furnish progress reports and such other information as may be required by the assistance awarding agency or State.
6. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
7. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
8. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§ 4728-4763) relating to prescribed standards for merit systems for programs funded under one of the nineteen statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
9. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§ 4801 et seq.) which prohibits the use of lead based paint in construction or rehabilitation of residence structures.
10. Will comply with all Federal statutes relating to non-discrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§ 1681-1683, and 1685-1686) which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. § 794) which prohibits discrimination of the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§ 6101-6107) which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 93-255), as amended, relating to non-discrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§ 523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. 290 dd-3 and 290 ee-3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. § 3601 et seq.), as amended, relating to non-discrimination in the sale, rental or financing of housing; (i) any other non-discrimination provisions in the specific statute(s) under which application for Federal assistance is being made, and (j) the requirements on any other non-discrimination Statute(s) which may apply to the application.

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Standard Form 424D (Rev. 4/92)
Prescribed by OMB Circular A-102

Figure 5
Standard Form 424D (cont'd.)

11. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provides for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal and federally assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
12. Will comply with the provisions of the Hatch Act (5 U.S.C. §§ 1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.
13. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§ 276a to 276a-7), the Copeland Act (40 U.S.C. § 276c and 18 U.S.C. § 874), the Contract Work Hours and Safety Standards Act (40 U.S.C. §§ 327-333) regarding labor standards for federally assisted construction subagreements.
14. Will comply with the flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
15. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. § § 7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended, (P.L. 93-523); and (h) protection of endangered species under the Endangered Species Act of 1973, as amended, (P.L. 93-205).
16. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§ 1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
17. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. § § 470), EO 11593 (identification and preservation of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. § § 469a-1 et seq.).
18. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act of 1984.
19. Will comply with all applicable requirements of all other Federal laws, Executive Orders, regulations and policies governing this program.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL <div style="text-align: center; font-family: cursive;">RL Brown</div>	TITLE <div style="text-align: center; font-family: cursive;">CERT III</div>
APPLICANT ORGANIZATION <div style="text-align: center; font-family: cursive;">Cal. Dept. Water Resources</div>	DATE SUBMITTED <div style="text-align: center; font-family: cursive;">6/30/98</div>

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